

ABSTRACT

The present invention has its object to provide a method of spraying particles by which predetermined quantities of particles can be disposed on specified electrodes, in particular a method of spraying particles by which spacers can be sprayed in interelectrode gaps selectively even in the case of substrates comprising pattern-forming transparent electrodes, such as those used in liquid crystal display devices, and a method of producing liquid crystal display devices of high contrast and high display uniformity by which spacers can be disposed in interelectrode gaps without sacrificing the aperture ratio and by which spacers can be disposed on the substrate without irregularity to attain a uniform cell thickness over the whole substrate, as well as a particle spraying apparatus and a liquid crystal display device.

The present invention provides a method of spraying particles

which comprises applying a voltage of the same polarity as the particle charge polarity to a plurality of electrodes formed on a substrate

and spraying the particles while utilizing the repulsive force operating on the particles, wherein means is employed for preventing the particles from being forced out of the electrode domain comprising the plurality of electrodes.